



PTO/SB/08a (06-03)

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Substitute for form 1449A/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet

1

of

3

**Complete if Known**

Application Number	10/728,234
Filing Date	December 4, 2003
First Named Inventor	Dan TOMESCU
Art Unit	2183
Examiner Name	
Attorney Docket Number	5227-0001-1

**U. S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2</sup> (if known)			
DB		US- 4575818	03-11-1986	Almy, et al.	
		US- 4907148	03-06-1990	Morton	
		US- 4983958	01-08-1991	Carrick	
		US- 5122984	06-16-1992	Strehler	
		US- 5150430	09-22-1992	Chu	
		US- 5319762	06-07-1994	Mayer	
		US- 5329405	07-12-1994	Hou, et al.	
		US- 5373290	12-13-1994	Lempel, et al.	
		US- 5440753	08-08-1995	Hou, et al.	
		US- 5488733	09-05-1995	Satoh, et al.	
		US- 5497488	03-05-1996	Akizawa, et al.	
		US- 5602764	02-11-1997	Eskandari-Gharnin	
		US- 5640582	06-17-1997	Hays, et al.	
		US- 5818873	10-06-1998	Wall, et al.	
		US- 5828593	10-27-1998	Schultz, et al.	
		US- 6089453	07-18-2000	Kayser, et al.	
		US- 6295534	09-25-2001	Mann	
DB		US- 6317819	11-13-2001	Morton	

**FOREIGN PATENT DOCUMENTS**

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		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				

Examiner  
Signature

/Dennis Butler/

Date  
Considered

04/24/2006

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Sheet 2

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DB		US- 6542989	04-01-2003	Duranton	
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		Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known)				

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Signature

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Substitute for form 1449B/PTO  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)				<b>Complete if Known</b>	
				Application Number	10/728,234
				Filing Date	December 4, 2003
				First Named Inventor	Dan TOMESCU
				Art Unit	2183
				Examiner Name	
Sheet	3	of	3	Attorney Docket Number	5227-0001-1

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		T <sup>2</sup>
DB		MITU et al., "A CMOS Implementation of a Connex Memory," pp 579-582, IEEE, 1997.		
DB		STEFAN, Gheorghe, "Silicon or Molecules? What's the Best for Splicing?", Technical Univ. of Bucharest, Dept. of Electronics, pp 158-181, 1998.		
DB		STEFAN, Gheorghe, The Connex Memory. "A Physical Support for Tree/List Processing", Technical Univ. of Bucharest, Dept. of Electronics, pp 1-22, 1994.		
DB		STEFAN, Gheorge and BENEA, Robert, "Connex Memories & Rewriting Systems", Politehnica Univ. of Bucharest, Dept. of Electronics, pp 1299-1303, 1998.		
DB		STEFAN, Denisa and STEFAN, Gheorghe, "Bi-thread Microcontroller as Digital Signal Processor", 1997 IEEE.		
DB		HASCSI, Zoltan, MITU, Bogdan, PETRE, Mariana and STEFAN, Gheorghe, "High-Level Synthesis of an Enhanced Connex Memory" 1996 IEEE, pages 163-166.		
DB		STEFAN, G. and DRAGNICI, F., "Memory Management Unit With a PerformantLRU Circuit" Polytechnic Institute of Bucharesi, pages 89-96, Jan 1991.		
DB		THIEBAUT, Dominique and STEFAN, Gheorghe, "Local Alignments of DNA Sequences with the Connex Engine" pp 1-12, Sept. 2001.		
DB		STEFAN, Gheorghe and MALITA, Mihaela, "The Splicing Mechanism and the Connex Memory" Technical Univ. of Bucharest, Dept. of Electronics; Univ. of Bucharest, Fac. of Mathematics, pgs. 225-229, 1997.		
DB		HASCSI, Zoltan and STEFAN, Gheorghe, "The Connex Content Addressable Memory (C2AM)" "Politehnica" University of Bucharest, Electronics & Telecommunications Dpt., pgs. 422-425, Sept 1995.		

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Sheet	1	of	2
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Application Number	10/728,234
Filing Date	December 4, 2003
First Named Inventor	DAN TOMESCU
Art Unit	2183
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Attorney Docket Number	5227-0001-1

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		Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)	MM-DD-YYYY			
DB		WO 01/53933	07-26-2001	MICRON TECHNOLOGY		

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		Application Number	10/728,234		
		Filing Date	December 4, 2003		
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		Examiner Name			
Sheet	2	of	2	Attorney Docket Number	5227-0002-1

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
DB		SHAW D E et al: "Active Memory Chip: A Brief Survey And Case Study" Circuits, Systems And Signal Processing, Cambridge, MS, US, vol. 6 no. 2, 1987 pages 239-258, XP000747239,	

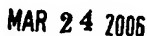
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Sheet	1	of	22
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Application Number	10/728,234
Filing Date	December 4, 2003
First Named Inventor	Gheorghe Stefan
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## U. S. PATENT DOCUMENTS

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DB		WO 01/33352 A1	05/10/2001	Advanced Micro Devices		
DB		GB 2230119 A	10/10/1990	Intel Corporation		

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DB		INTEL, Intel Architecture Software Developer's Manual - Vol. 1: Basic Architecture, Chpt. 4, "Procedure Calls, Interrupts, and Exceptions"	
DB		SHAW, David E. et al., Active Memory Chips: A Brief Study and Case Study", Circuits Systems Signal Process, Vol. 6, NO. 2, 1987	
DB		BERRACHED, Ali et al., A Decoupled Access/Execute Architecture for Efficient Access of Structured Data, PA State University, 1993 IEEE	

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